

**IN THE SPECIFICATION:**

Please amend paragraph [0014] as follows:

[0014] ~~FIG. 1 is a flow chart~~ FIGS. 1 and 1A are flow charts illustrating the steps in ~~methods a method~~ of the present invention for continuously monitoring a patient for the onset of pain; and

Please amend paragraph [0015] as follows:

[0015] ~~FIG. 2 is a flow chart~~ FIGS. 2 and 2A are flow charts illustrating the steps in ~~methods a method~~ of the present invention for continuously monitoring a patient to predict the occurrence of strokes.

Please amend paragraph [0027] as follows:

[0027] Turning to FIG. 1, a first method of the present invention involves the detection of (CO) gas in a patient's breath, e.g. expired (CO) gas, from hemolysis, which is used to predict the onset of pain. The first method of the present invention relies on the association between hemolysis and a reduction in bioavailability of nitric oxide (NO), which leads to pain by mechanisms that include vasoconstriction. To continuously monitor a patient for the onset of pain, for example, in patient confined to a hospital bed, the patient is provided with suitable means to capture end-tidal breath gases for analysis. (Box 100). These may include the use of any conventional breath gas analyzer system having sufficient sensitivity to acquire measurements of gas concentrations required by the present invention. The end-tidal breath gas measurements are then acquired (Box 102), and the specific concentration of the expired (CO) gas is measured (Box 104). If the concentration exceeds the predetermined limits found to indicate the onset of pain in the patient (Box 106) ~~(Box 146)~~, a warning or other pain onset index is displayed to an operator or presented on a monitoring station (Box 108). Alternatively, if the concentration does not indicate the

onset of pain, a "normal" indicator is displayed (Box 110).

Please amend paragraph [0029] as follows:

[0029] The process of acquiring end-tidal breath gas measurements and measuring the concentration of (CO) gas for comparison with predetermined levels in either method may be repeated continuously, such as for patients coupled to respirator systems. The steps illustrated in FIGS. 1A and 2A include comparing the measured concentrations of breath gas to a predetermined concentration profile indicative of an onset of at least one sickle-cell pathology or indicative of at least one selected nitric oxide-related negative influence associated with an ivHb-dependent decrease in bioavailability.